

# SR 520 Toll Proposal Briefing

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Secretary of Transportation

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**Washington State Transportation Commission**  
**July 14, 2010**



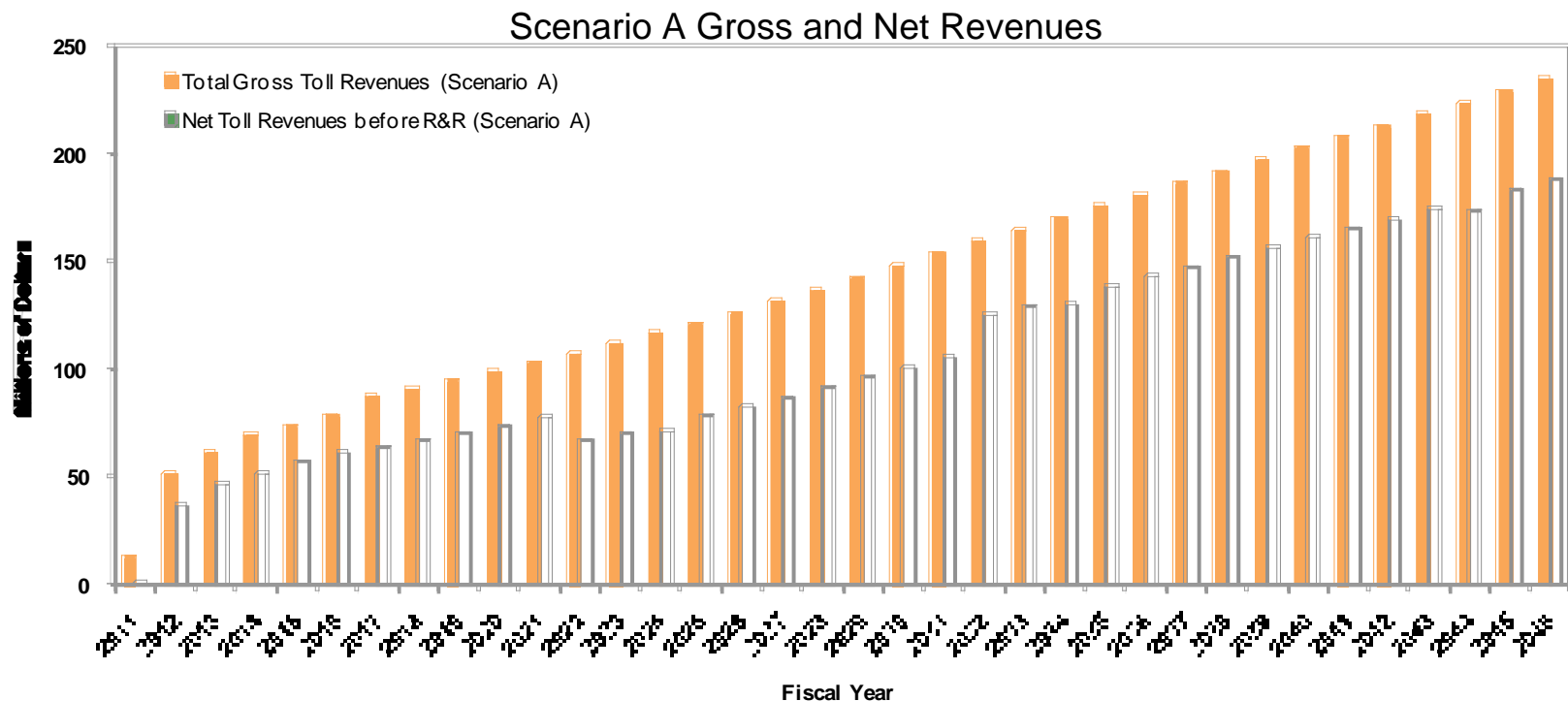
**Washington State**  
**Department of Transportation**

# Agenda

- Agenda review  
*Craig Stone*
- Recap of Available Funds  
*Amy Arnis*
- Recap of toll assumptions / convergence of toll alternatives  
*Craig Stone*
- Recap of Tolling Implementation Committee Work  
*Jennifer Ziegler*
- Alternatives tested and financial results  
*Amy Arnis*
- Toll schedule charts / rate tables: Alternatives 4.1 and D.1  
*Craig Stone*
- Commission discussion, recommendations and next steps  
*Craig Stone*

# Net Revenues = Funds Available for Debt Service

- Deductions from gross revenues to yield net revenues include:
  - Operations and maintenance
  - Uncollectible accounts
  - Bridge insurance premiums
  - Deferred sales tax payments over 10 years starting in FY 2022
- Other uses of toll revenues after debt service
  - Deferred sales tax payments if not paid prior to debt service
  - Facility R&R costs
  - Revenue stabilization account and other reserves



# Recap of Toll Assumptions

- ❑ Two-tier toll schedule
  - Base schedule for pre-paid *Good to Go!* accounts
  - Higher schedule (+ \$1.50) for *Pay by Mail* transactions
- ❑ Variable tolls
  - Higher tolls during peak times and lower tolls off-peak
  - Weekend variable tolls on a different, lower schedule
- ❑ Toll escalation to keep pace with inflation over time
- ❑ No overnight tolls during construction period
- ❑ Trucks pay a multiple of the auto toll based on axle count
- ❑ Toll exemptions
  - Transit, private coaches and agency sanctioned vanpools exempt per UPA
  - WSP, WSDOT bridge maintenance vehicles, vehicles on emergency calls

# **520 Tolling Implementation Committee Convened in Summer 2008 – Winter 2009**



**Bob Drewel, Committee  
Chair, Executive Director,  
PSRC**



**Paula Hammond,  
Secretary, Washington  
State DOT**



**Dick Ford, Washington  
State Transportation  
Commission**

# 520 Tolling Implementation Committee Charge

- Evaluate
  - Traffic diversion from 520 to other routes, including 522, and recommend mitigation,
  - Advanced tolling technology,
  - New applications of emerging technology to better manage traffic.
- Explore opportunities to partner with the business community to reduce congestion and contribute financially.
- Confer with mayors and city councils.
- Conduct public work sessions and open houses to solicit citizen views on tolling the existing 520 bridge, tolling both 90 and 520, providing incentives for transit and carpooling, implementing variable tolling.
- Provide a report to the governor and legislature in January 2009.

# **520 Tolling Implementation Committee**

## **Public engagement charge**

Engage citizens on the following topics:

- Funding a portion of the 520 replacement project with tolls on the existing bridge.
- Funding the 520 replacement project and improvements on the 90 Bridge with a toll paid by drivers on both bridges.
- Providing incentives and choices for transit and carpooling.
- Implementing variable tolling as a way to reduce congestion.

# Extensive Public Engagement in 2008

- 16,000 build520.org Website visitors
- 7,800 web survey participants
- 1,200 phone survey respondents
- 8,000 written comments
- 700 open house attendees
- 1,000+ Sierra Club postcards
- 3,300+ No Toll on I-90 petition signatures





# 520 Tolling Implementation Committee

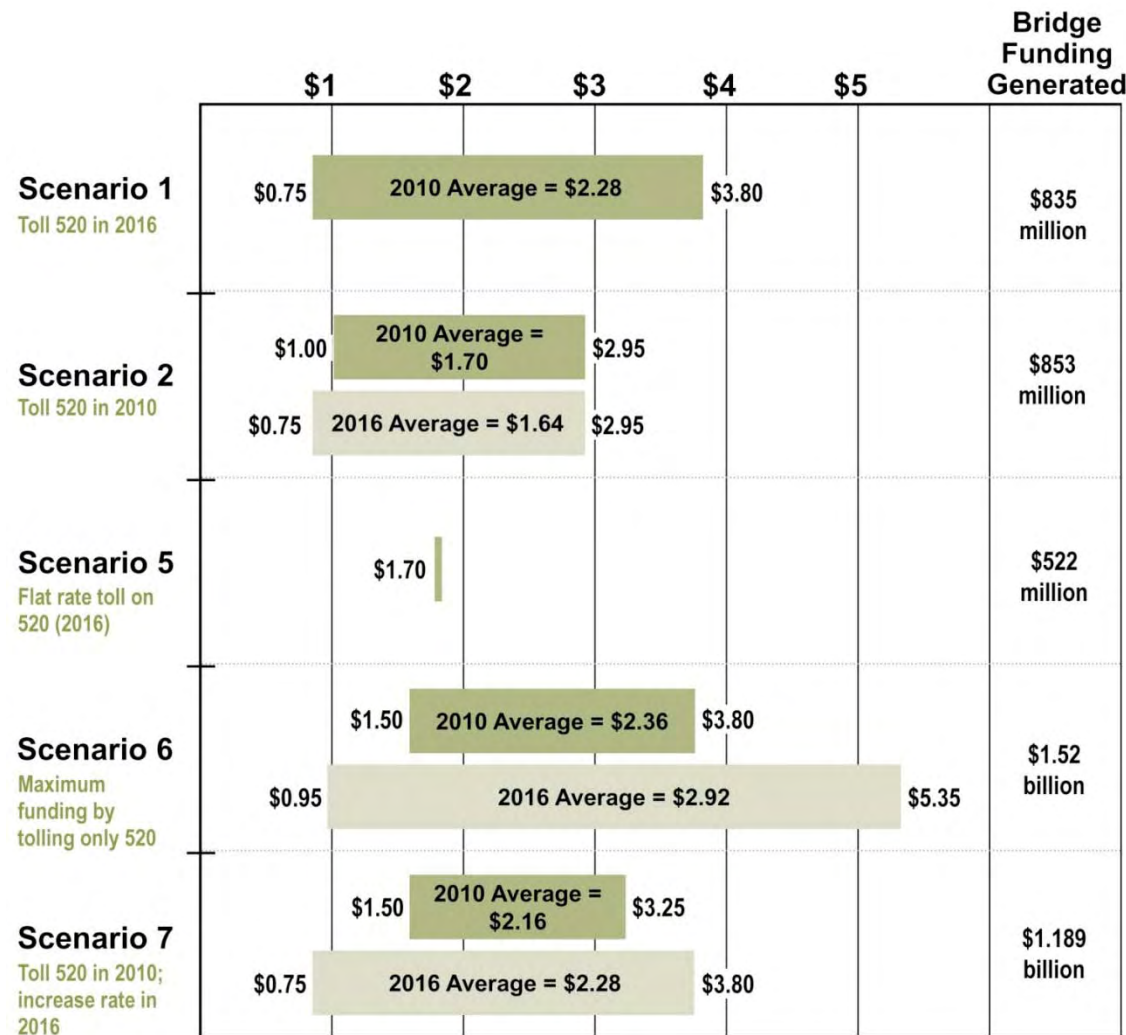
## Examples of Variable Toll Ranges Evaluated

| Time of Day                               | Range of Tolls Evaluated (2007\$) |
|---|-----------------------------------|
| <b>Morning Commute</b><br>(5 AM – 9 AM)   | <b>\$2.15 - \$4.25</b>            |
| <b>Mid-Day</b><br>(9 AM – 3 PM)           | <b>\$1.05 - \$2.75</b>            |
| <b>Afternoon Commute</b><br>(3 PM – 7 PM) | <b>\$2.80 - \$5.35</b>            |
| <b>Evening</b><br>(7 PM -10 PM)           | <b>\$1.00 - \$2.60</b>            |
| <b>Overnight</b><br>(10 PM – 5 AM)        | <b>\$0.00 – \$0.90</b>            |
| <b>Weekend</b>                            | <b>\$0.80 - \$1.60</b>            |

**Note:** Tolls assumed to increase at rate of inflation

# 520 Tolling Implementation Committee

## Toll Ranges Evaluated by Scenario (2007\$)

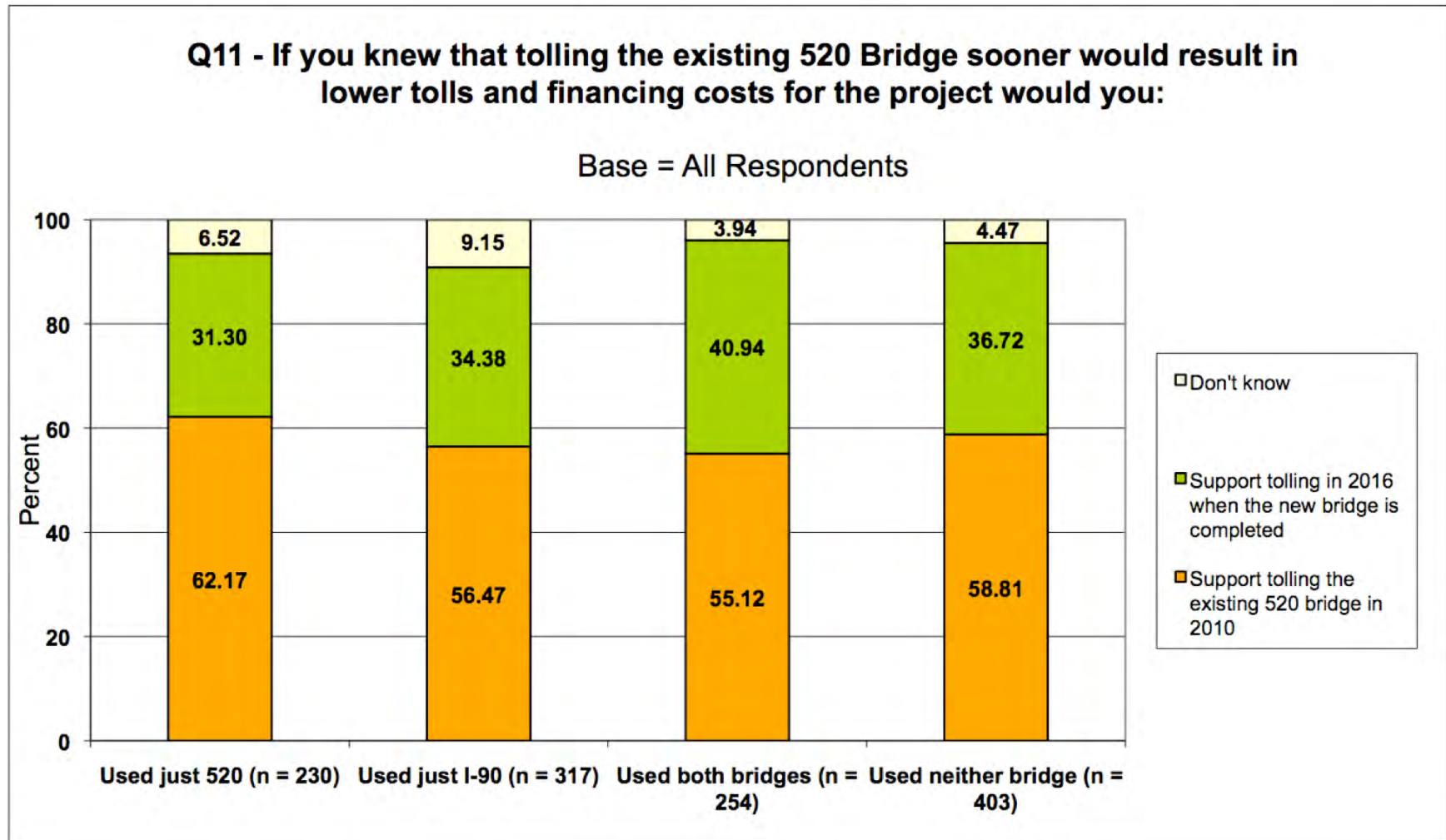


### Notes:

- All toll rates are one-way.
- All tolls are 2007 dollars.
- 2010 scenarios do not charge an overnight toll.

# Key Findings from 2008 Phone Survey

## Support Early Tolling If Results in Lower Tolls and Financing Costs



# Findings from 2008 Tolling Implementation Committee Random-Sample Phone Survey

## **Most Supported Tolling the 520 Bridge**

Three-fifths or more of the respondents supported tolling the 520 Bridge as a means of paying for a portion of the bridge replacement.

## **Electronic Tolling Increased Support for Tolling**

When respondents learned that electronic tolling means vehicles travel at normal speeds through the toll area, a third or more were *much more likely* to support tolling the 520 Bridge.

## **Most Supported Early Tolling When They Considered Its Impact on Toll Amounts and Financing Costs**

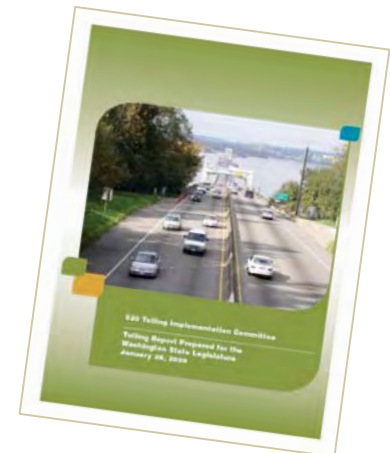
Well more than half supported beginning tolling of the existing 520 Bridge in 2010 when they knew that such early tolling would result in lower tolls and financing costs.

## **Most Supported Early Tolling When They Considered Its Impact on Travel Speeds**

About half supported beginning tolling of the existing 520 Bridge in 2010 when they knew that such early tolling would result in faster travel speeds on the 520 Bridge.

## **Most Supported Variable Rate Tolling**

There was support for variable rate tolling and it was even more appealing when respondents knew that the toll rates during off-peak times would be about half of peak toll rates.



# Convergence of Alternatives

## What we heard...

- Toll escalation set at 2.5% per year.
- Allow flexibility to adjust shoulder and off-peak periods to manage traffic effectively.

## What we learned...

- Matching AM and PM peak tolls has some benefits
  - Simplifies toll schedule / reduces number of toll levels
  - Duration of peak periods can be adjusted to balance traffic
  - Opportunity to revisit if traffic warrants

## Still on the table...

- *Should there be a “step increase” in tolls when the authorized Floating Bridge, Landings and Eastside project is completed?*

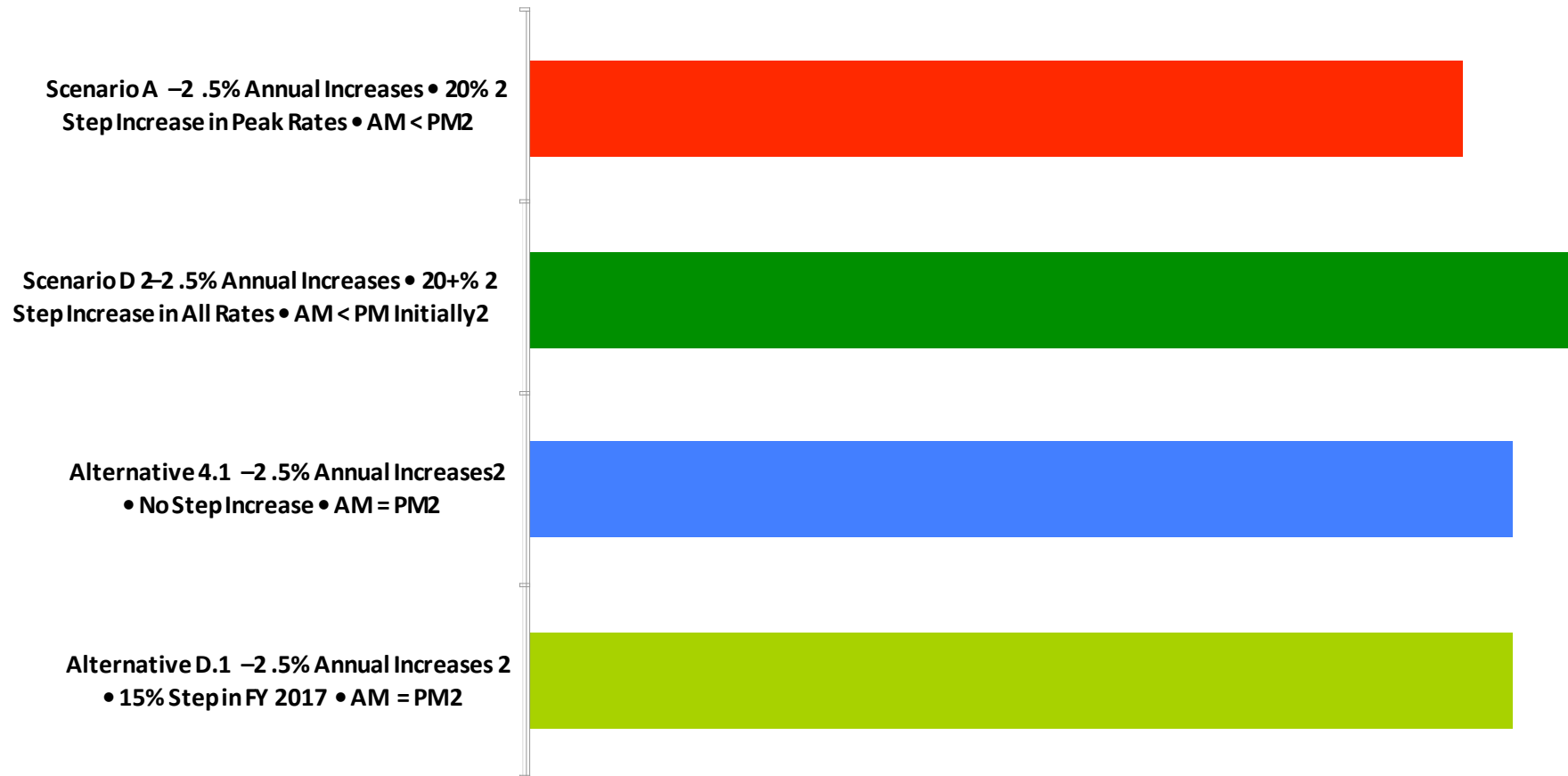
# Alternative Toll Schedules Tested

| Toll Schedule    | Escalation   | Initial AM   PM Peak Tolls | FY 2017 AM   PM Peak Tolls | Initial Off-Peak Tolls | Initial Weekend Peak Toll | Financial Score<br>1 = Scenario A<br>10 = Scenario D | Comments   |
|------------------|--|----------------------------|----------------------------|------------------------|---------------------------|--|--|
| Scenario A4      | 2.5% / year<br>20% Step r<br>Peak Ratesr<br>FY 2017r | \$2.804   \$3.504          | \$3.854   \$4.754          | Base4                  | \$1.704                   | 14   | Same as TIC Scenario 7 • 20% r<br>step increase in AM and PM r<br>peak tolls in FY 2017r   |
| Scenario D4      | 2.5% / year<br>20%+ Step r<br>All Ratesr<br>FY 2017r | \$2.804   \$3.504          | \$4.754   \$4.754          | Base4                  | \$2.154                   | 104  | Same initial tolls as Scenario r<br>A • Higher AM peak, off-peak r<br>and weekend tolls FY 2017+r<br>to increase funding capacityr |
| Alternative 14   | 2.5% / year<br>No Step r<br>Increaser                | \$3.404   \$4.204          | \$3.854   \$4.754          | Base4                  | \$2.204                   |  | Variant of Scenario A • Same r<br>tolls FY 2017+ except higher r<br>overnight and weekends • r<br>No FY 2017 step increaser        |
| Alternative 1.14 | 2.5% / year<br>No Step r<br>Increaser                | \$3.804   \$4.004          | \$4.304   \$4.754          | Base4                  | \$2.204                   | 64   | Same as Alternative 1 except r<br>lower AM / PM peak toll r<br>differentialr   |
| Alternative 4    | 2.5% / year<br>No Step r<br>Increaser                | \$4.004   \$4.004          | \$4.504   \$4.504          | Higher 4<br>than Base4 | \$2.204                   | 84   | Matching AM and PM peak r<br>tolls • Initial peak tolls are r<br>80% of max revenue levels • r<br>No FY 2017 step increaser        |
| Alternative 4.14 | 2.5% / year<br>No Step r<br>Increaser                | \$3.804   \$3.804          | \$4.304   \$4.304          | Higher 4<br>than Base4 | \$2.204                   | 54   | Lowertoll version of r<br>Alternative 4 • Initial peak r<br>tolls are 75% of max revenue r<br>levelsr                              |
| Alternative D.14 | 2.5% / year<br>15% Step r<br>All Ratesr<br>FY 2017r  | \$3.504   \$3.504          | \$4.354   \$4.354          | Base4                  | \$2.204                   | 54   | Variant of Scenario D with r<br>matching initial AM and PM r<br>peak tolls • Smaller (15%)r<br>FY 2017 step increaser              |

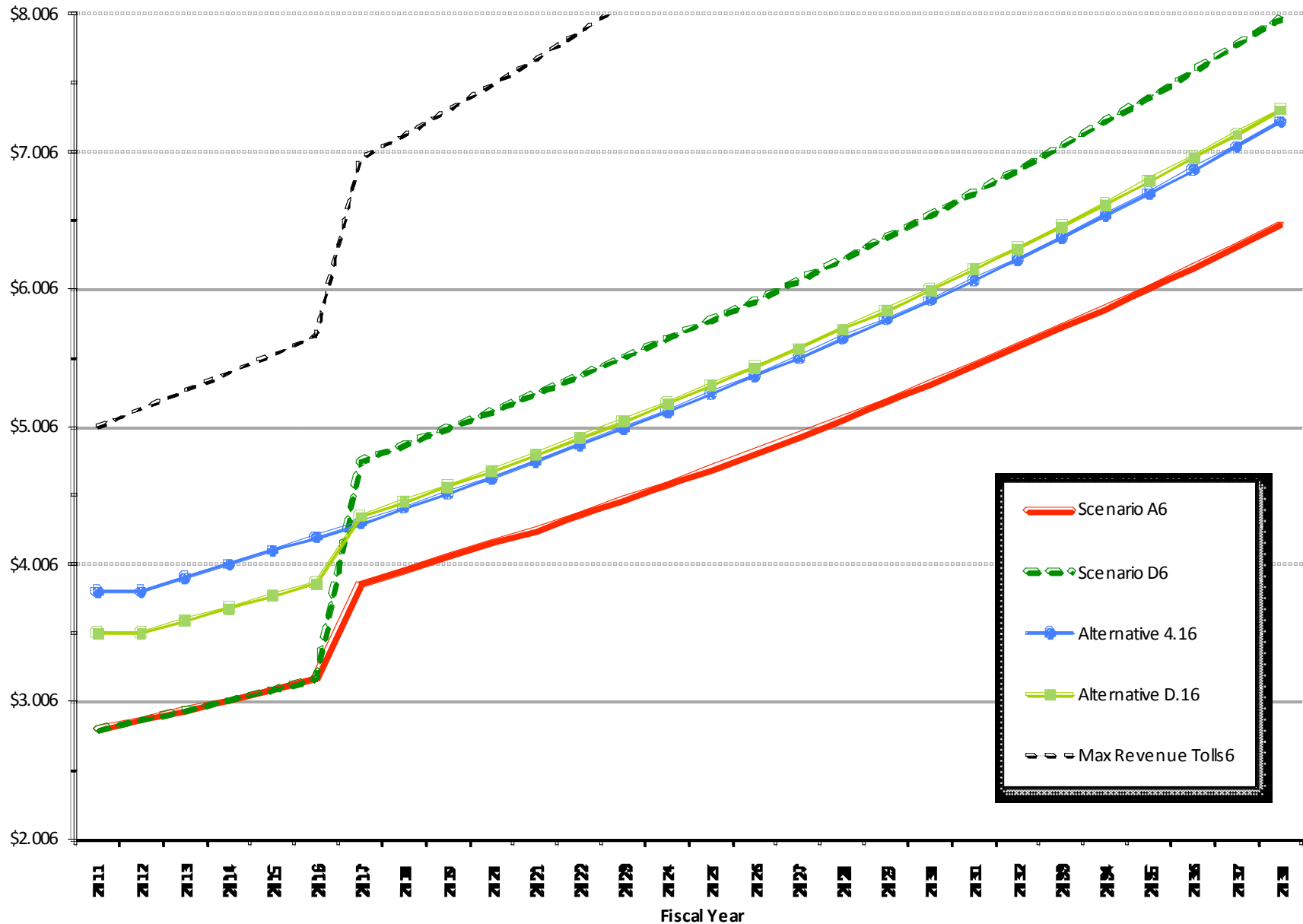
**Note:** In all cases, overnight tolling assumed to begin in FY 2017r

# Alternative Toll Schedule Financial Results

## Financial Capacity Comparison of Toll Scenarios A and D with Commission Alternatives 4.1 and D.1

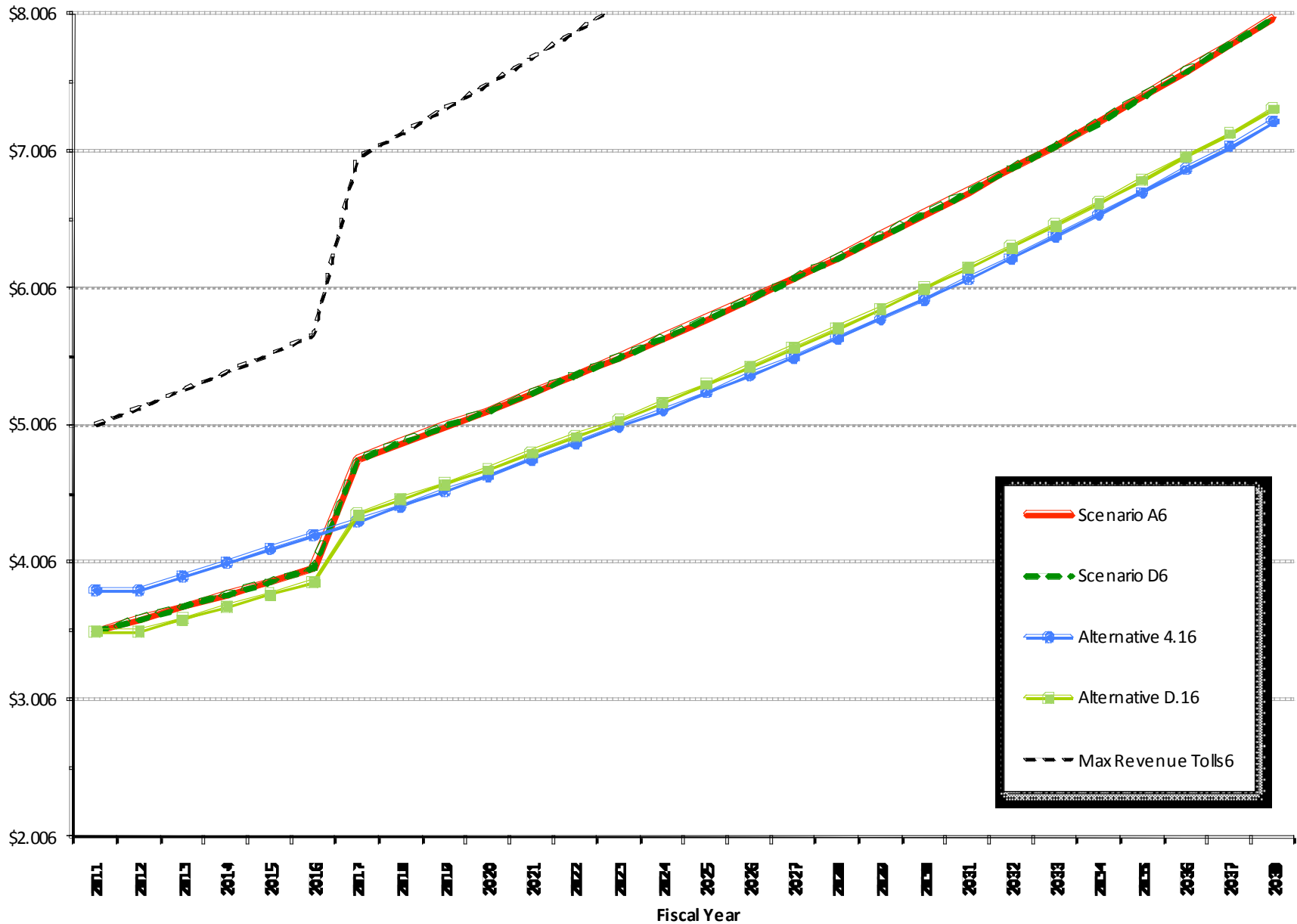


# Comparison of AM Peak Toll Rates

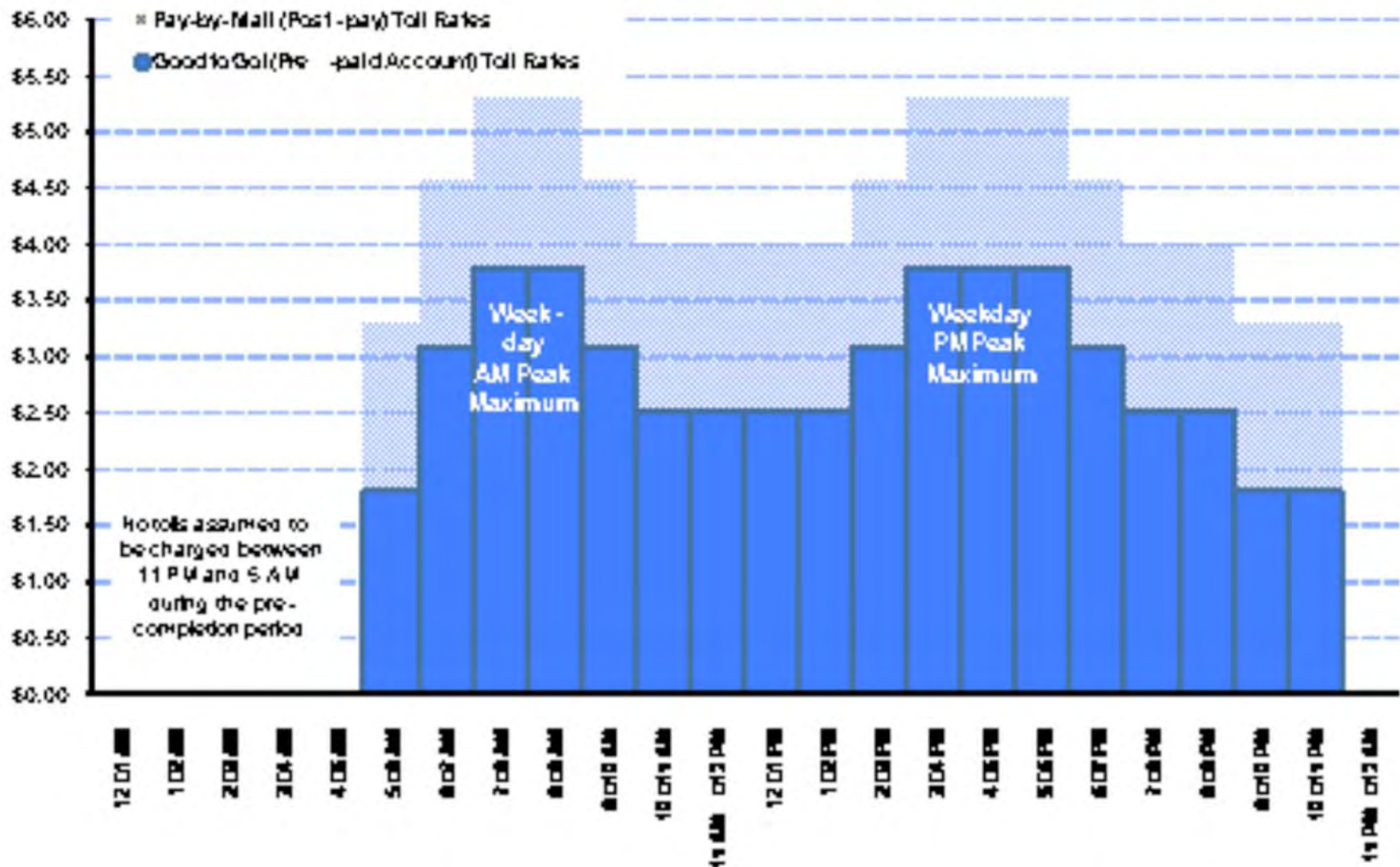




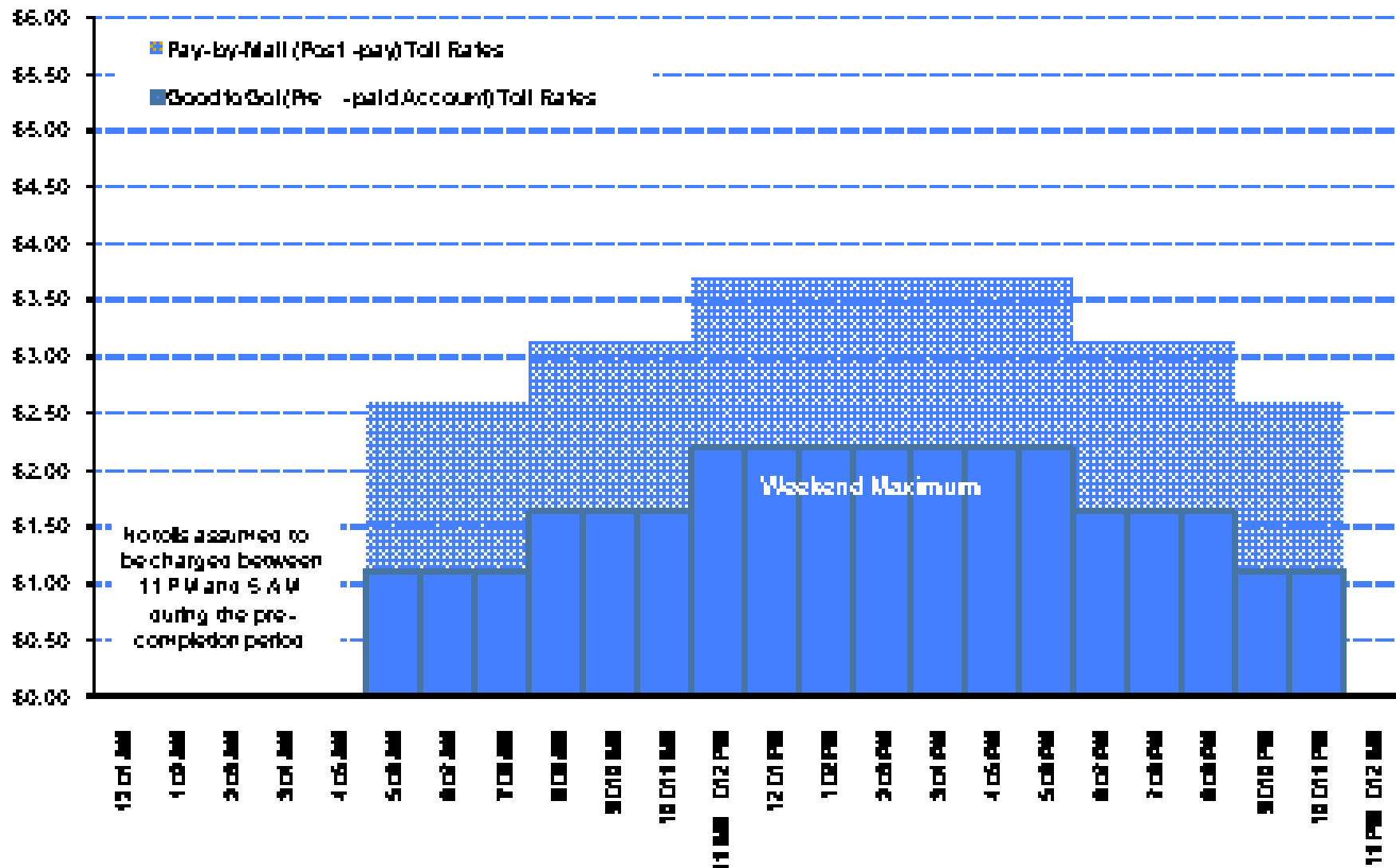
# Comparison of PM Peak Toll Rates



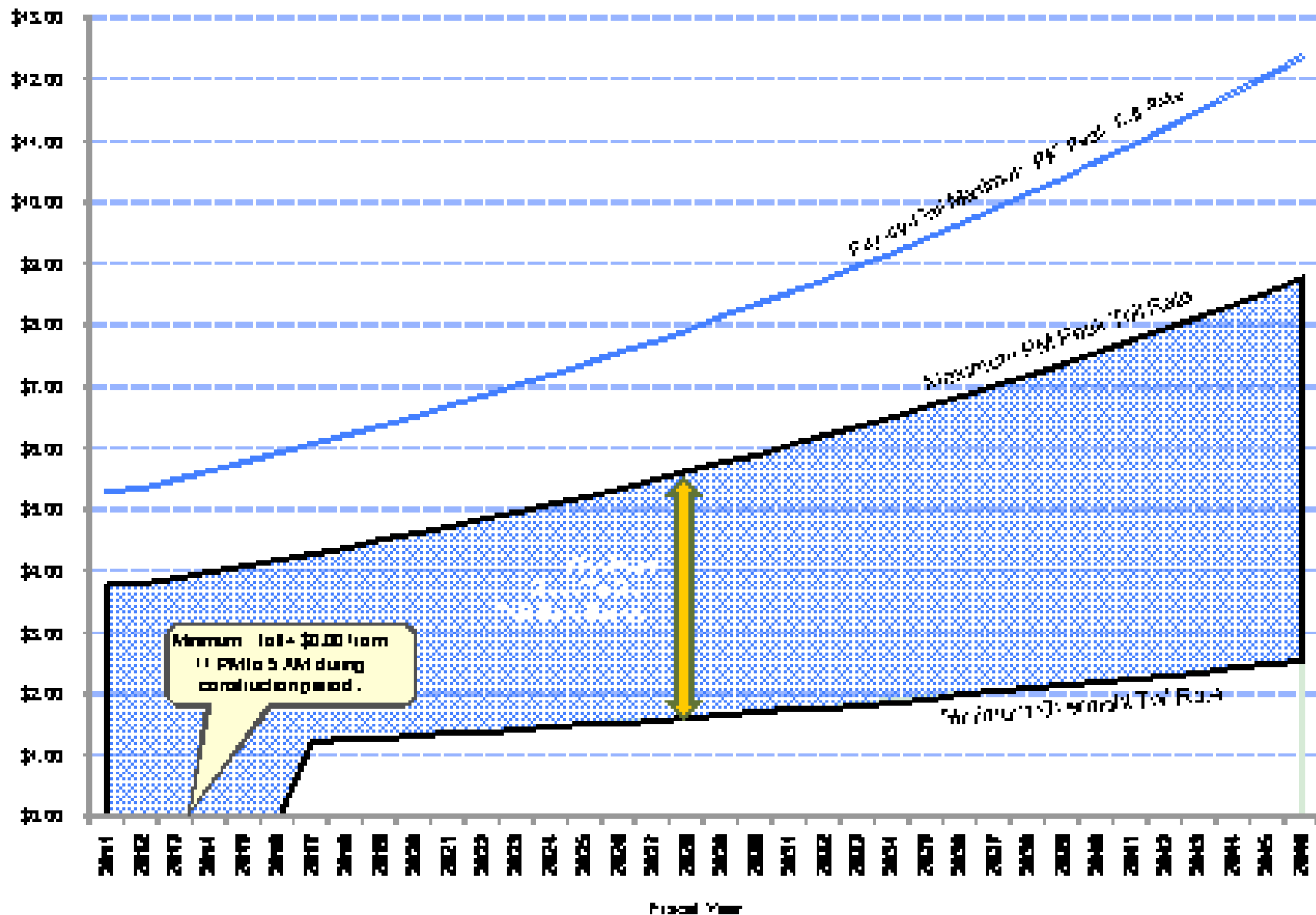
# Spring 2011 Weekday Toll Rates – Alternative 4.1



# Spring 2011 Weekend Toll Rates – Alternative 4.1



# Toll Rate Range over Time — Alternative 4.1

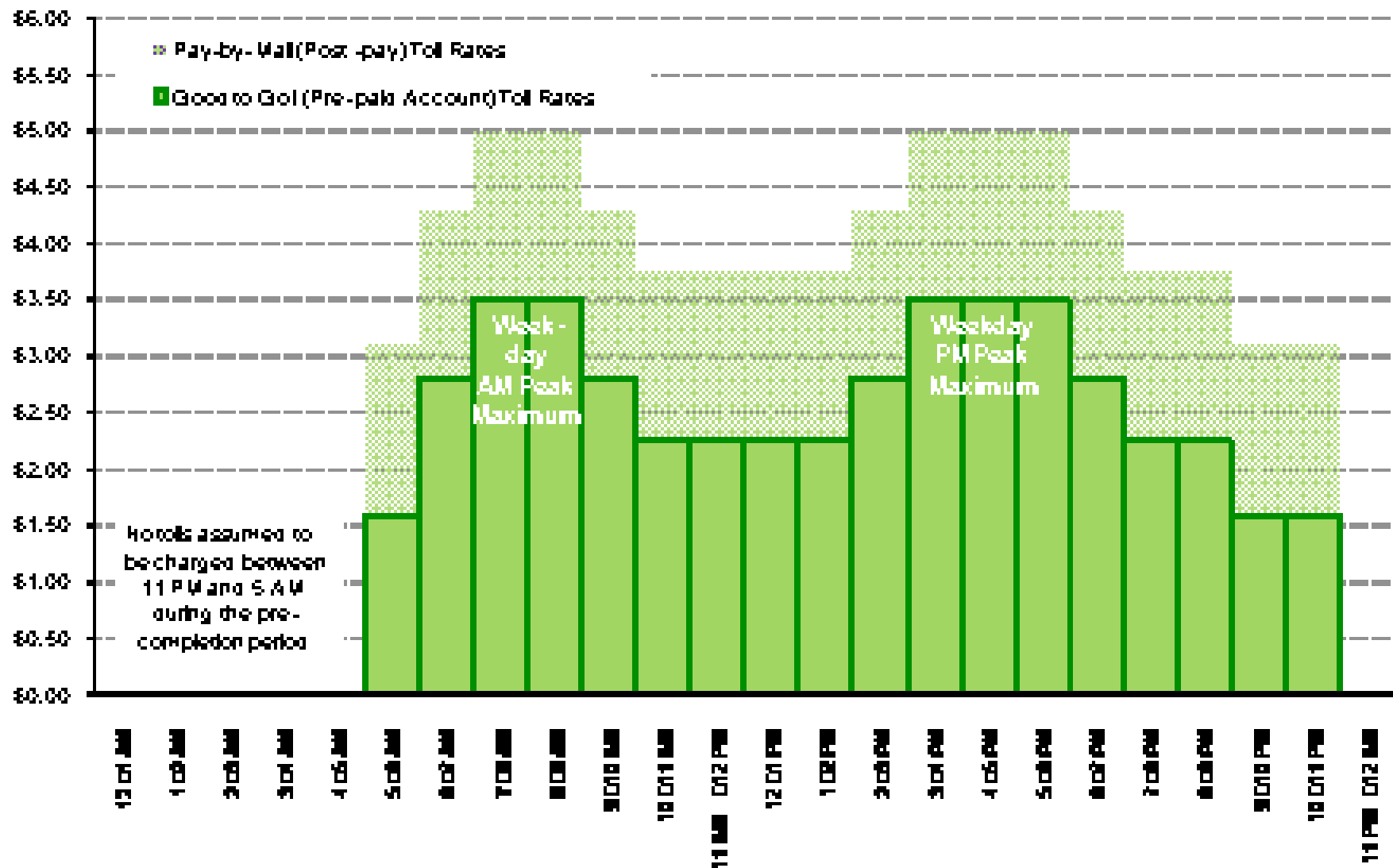


# Alternative 4.1 Summary

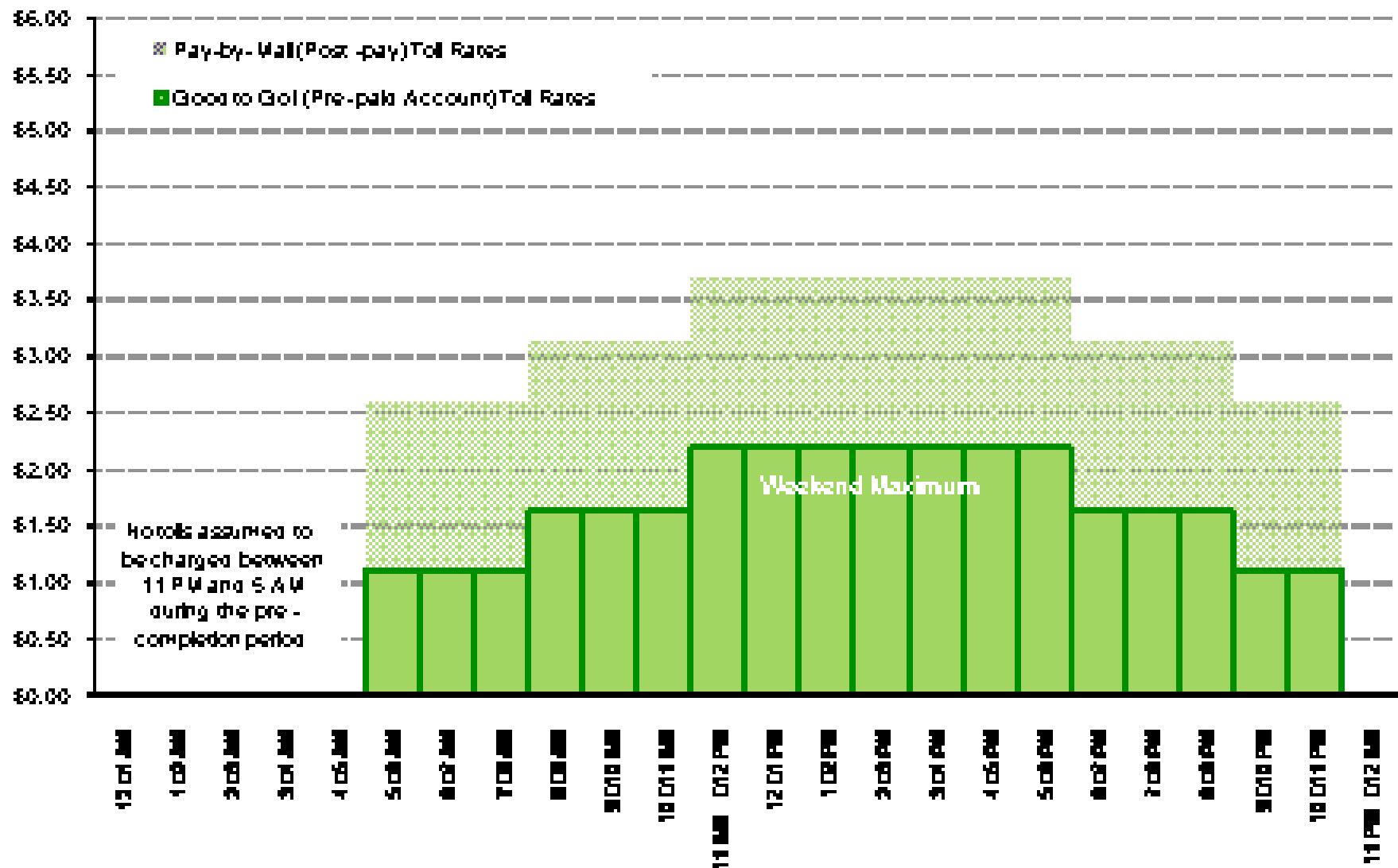
- \$3.80 weekday peak toll starting in FY 2011
- \$2.20 maximum weekend toll
- Pay-by-Mail toll \$1.50 higher
- 2.5% annual escalation
- No step increase in FY 2017
- \$1.25 overnight toll added in FY 2017

| Spring 2011 Toll Rates |                       |             |                       |             |
|------------------------|-----------------------|-------------|-----------------------|-------------|
|                        | Weekdays <sup>a</sup> |             | Weekends <sup>b</sup> |             |
|                        | Good To Go!           | Pay-by-Mail | Good To Go!           | Pay-by-Mail |
| 12-1AM                 |                       |             |                       |             |
| 1-2AM                  |                       |             |                       |             |
| 2-3AM                  | Toll-free             | Toll-free   | Toll-free             | Toll-free   |
| 3-4AM                  |                       |             |                       |             |
| 4-5AM                  |                       |             |                       |             |
| 5-6AM                  | \$ 1.80               | \$ 3.30     |                       |             |
| 6-7AM                  | \$ 3.10               | \$ 4.60     | \$ 1.10               | \$ 2.60     |
| 7-8AM                  | \$ 3.80               | \$ 5.30     |                       |             |
| 8-9AM                  |                       |             |                       |             |
| 9-10AM                 | \$ 3.10               | \$ 4.60     | \$ 1.65               | \$ 3.15     |
| 10-11AM                |                       |             |                       |             |
| 11AM-12PM              | \$ 2.50               | \$ 4.00     |                       |             |
| 12-1PM                 |                       |             |                       |             |
| 1-2PM                  |                       |             |                       |             |
| 2-3PM                  | \$ 3.10               | \$ 4.60     | \$ 2.20               | \$ 3.70     |
| 3-4PM                  |                       |             |                       |             |
| 4-5PM                  | \$ 3.80               | \$ 5.30     |                       |             |
| 5-6PM                  |                       |             |                       |             |
| 6-7PM                  | \$ 3.10               | \$ 4.60     |                       |             |
| 7-8PM                  | \$ 2.50               | \$ 4.00     | \$ 1.65               | \$ 3.15     |
| 8-9PM                  |                       |             |                       |             |
| 9-10PM                 | \$ 1.80               | \$ 3.30     | \$ 1.10               | \$ 2.60     |
| 10-11PM                |                       |             |                       |             |
| 11PM-12AM              | Toll-free             | Toll-free   | Toll-free             | Toll-free   |

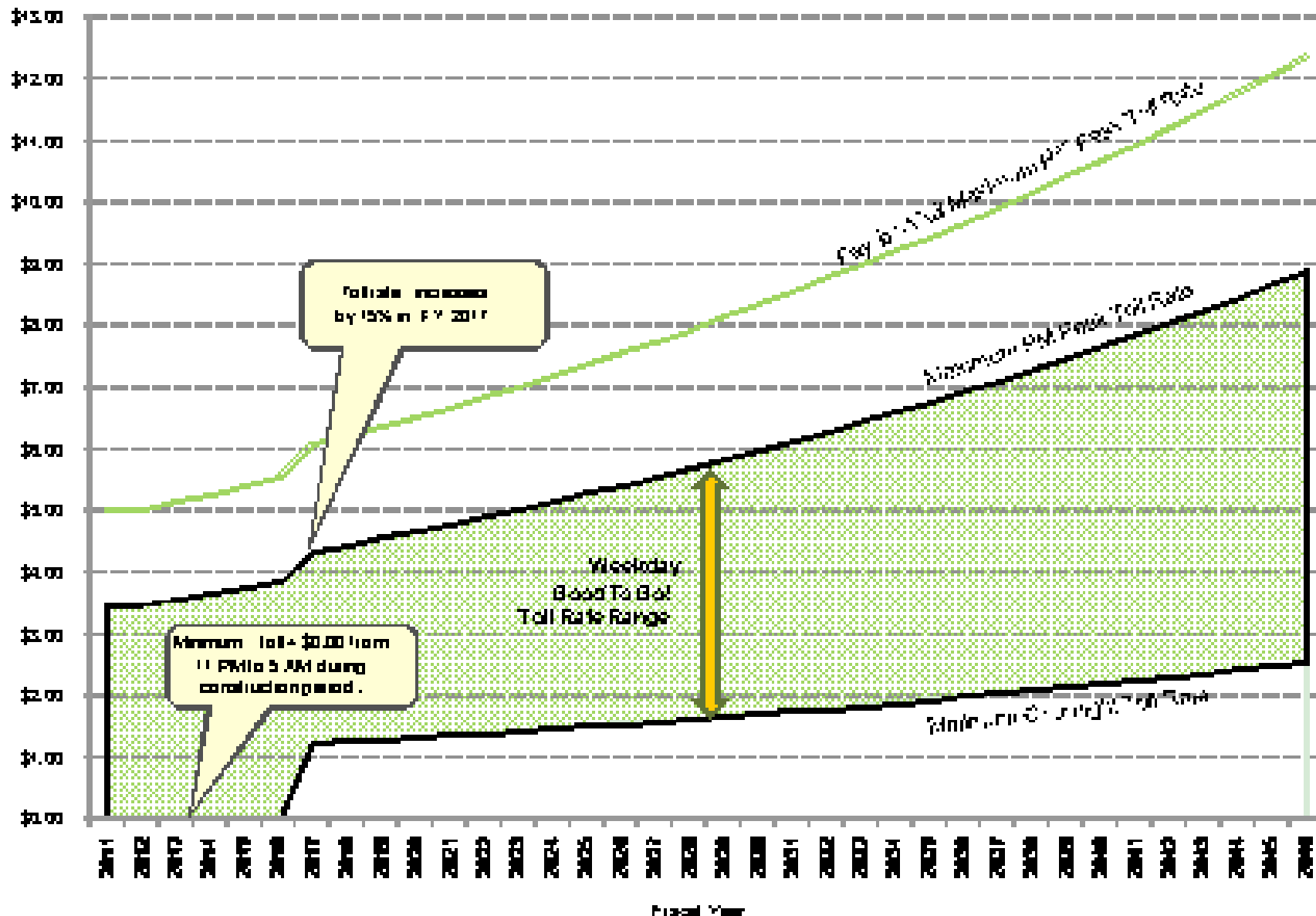
# Spring 2011 Weekday Toll Rates – Alternative D.1



# Spring 2011 Weekend Toll Rates – Alternative D.1



# Toll Rate Range over Time — Alternative D.1



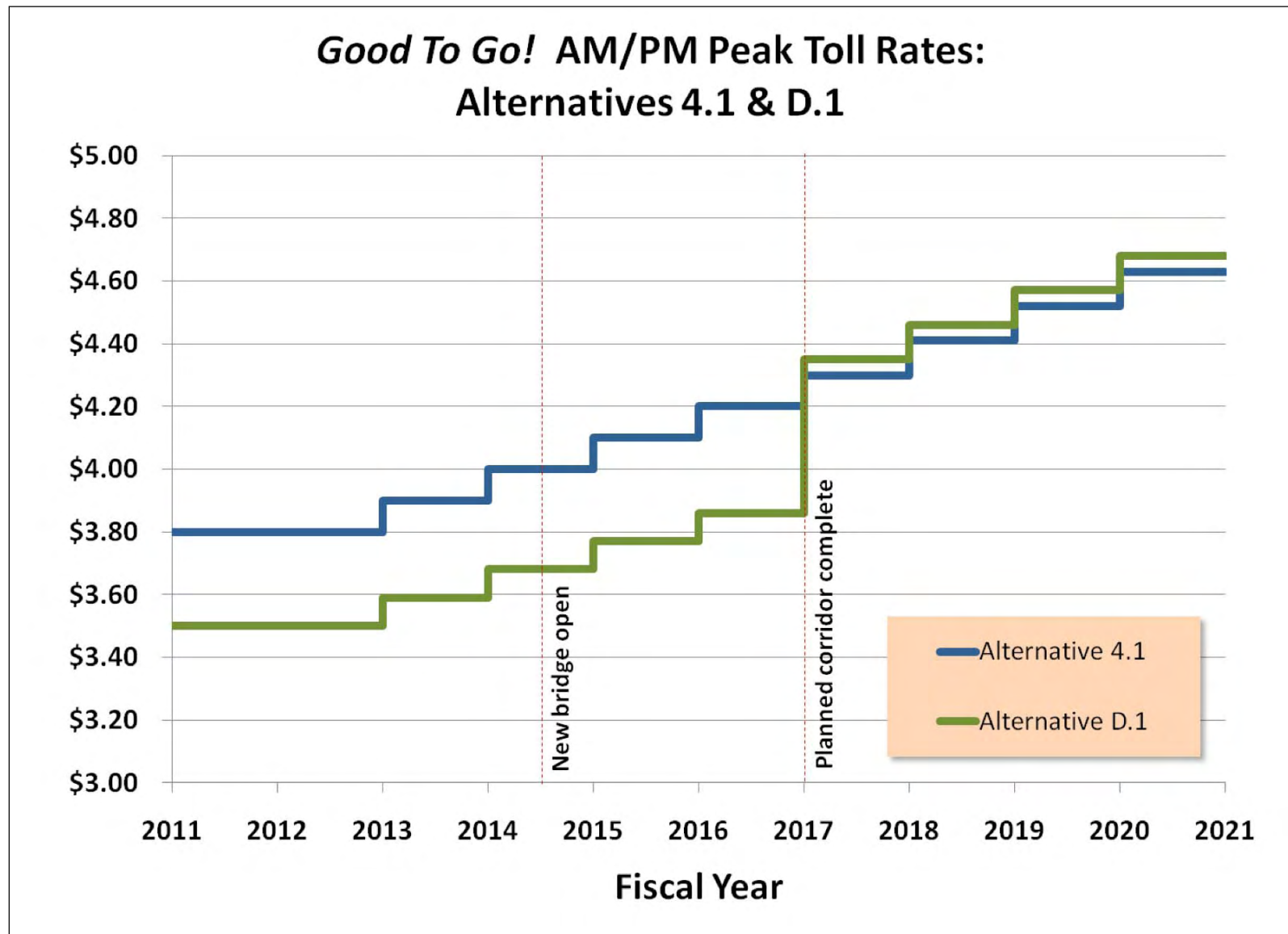


# Alternative D.1 Summary

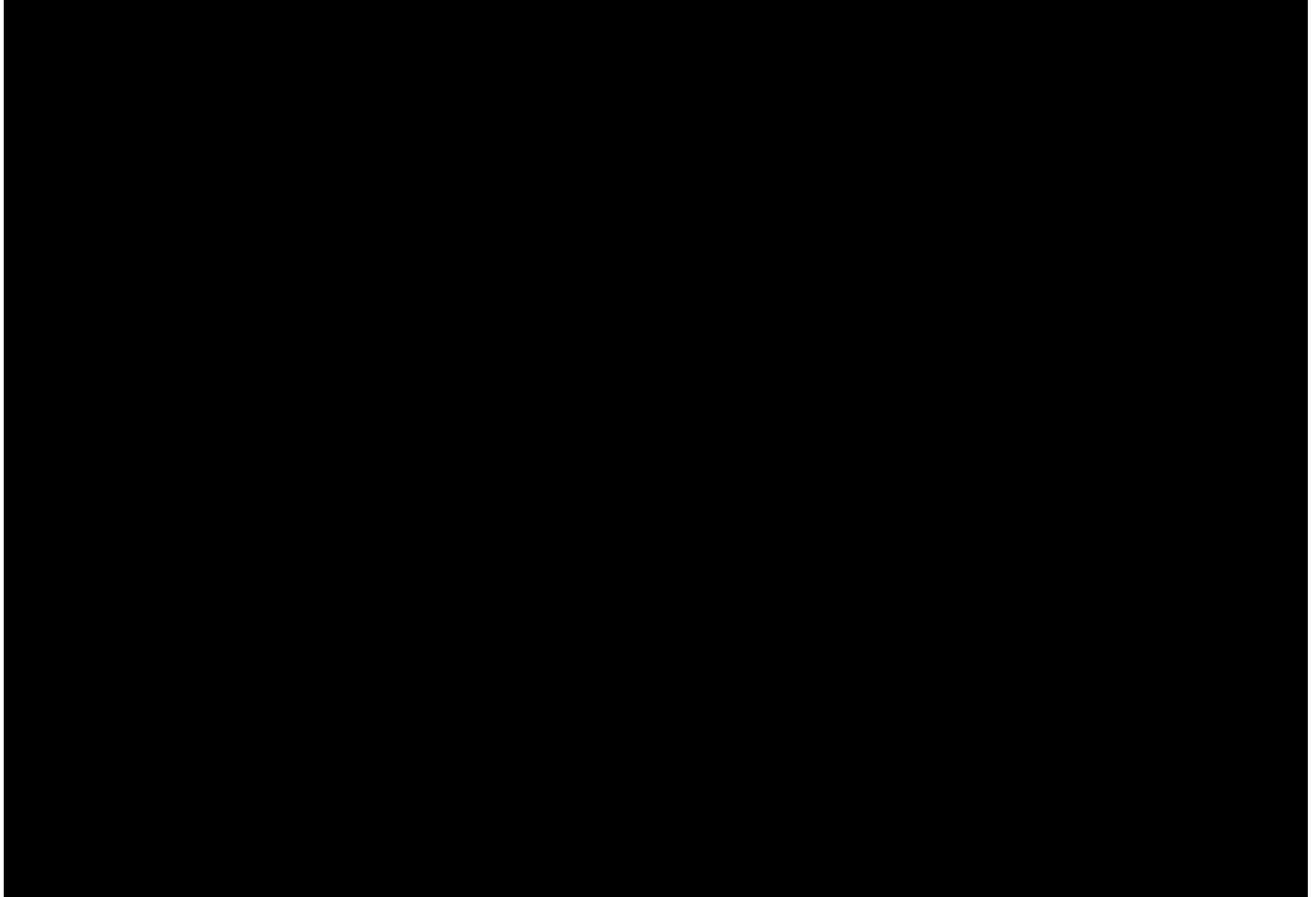
- \$3.50 weekday peak toll starting in FY 2011
- \$2.20 maximum weekend toll
- Pay-by-Mail toll \$1.50 higher
- 2.5% annual escalation
- 15% step increase in FY 2017 (10¢ + 40¢)
- \$1.25 overnight toll added in FY 2017

| Spring 2011 Toll Rates |             |             |             |             |
|------------------------|-------------|-------------|-------------|-------------|
|                        | Weekdaysa   |             | Weekendsb   |             |
|                        | Good To Go! | Pay-by-Mail | Good To Go! | Pay-by-Mail |
| 12-1AM                 |             |             |             |             |
| 1-2AM                  |             |             |             |             |
| 2-3AM                  | Toll-free   | Toll-free   | Toll-free   | Toll-free   |
| 3-4AM                  |             |             |             |             |
| 4-5AM                  |             |             |             |             |
| 5-6AM                  | \$ 1.60     | \$ 3.10     |             |             |
| 6-7AM                  | \$ 2.80     | \$ 4.30     | \$ 1.10     | \$ 2.60     |
| 7-8AM                  | \$ 3.50     | \$ 5.00     |             |             |
| 8-9AM                  |             |             |             |             |
| 9-10AM                 | \$ 2.80     | \$ 4.30     | \$ 1.65     | \$ 3.15     |
| 10-11AM                |             |             |             |             |
| 11AM-12PM              | \$ 2.25     | \$ 3.75     |             |             |
| 12-1PM                 |             |             |             |             |
| 1-2PM                  |             |             |             |             |
| 2-3PM                  | \$ 2.80     | \$ 4.30     | \$ 2.20     | \$ 3.70     |
| 3-4PM                  |             |             |             |             |
| 4-5PM                  | \$ 3.50     | \$ 5.00     |             |             |
| 5-6PM                  |             |             |             |             |
| 6-7PM                  | \$ 2.80     | \$ 4.30     |             |             |
| 7-8PM                  | \$ 2.25     | \$ 3.75     | \$ 1.65     | \$ 3.15     |
| 8-9PM                  |             |             |             |             |
| 9-10PM                 | \$ 1.60     | \$ 3.10     | \$ 1.10     | \$ 2.60     |
| 10-11PM                |             |             |             |             |
| 11PM-12AM              | Toll-free   | Toll-free   | Toll-free   | Toll-free   |

# Comparative Rate Changes Over Time



# Next Steps



# Questions?

For more information, please contact:

Craig Stone, Director  
WSDOT Toll Division

at

206-464-1222, or [StoneC@wsdot.wa.gov](mailto:StoneC@wsdot.wa.gov).



# **EXTRA SLIDES**

# ***Pay-by-Mail* Toll Rate Differential**

- Policy intent: Incentivize use of lower-cost, minimal-loss *Good-to-Go!* payment method
- Considerations:
  - Recover similar net revenue per customer as *Good-To-Go!* rate
  - Stay below revenue maximizing rate
- Why a \$1.50 increment?
  - Roughly the midpoint between high and low estimates of costs and losses attributable to pay-by-mail customers
  - Costs include license plate look-ups, mailings
  - Losses include unbillable tolls (unreadable license plates and bad addresses), but exclude losses from unpaid toll bills
  - Escalates over time so that both toll tiers keep pace with inflation

# Review of Toll-Backed Bond Options

## Tolls/MVFT/GO (Triple Pledge)

- First payable from toll revenues
  - Contractually pledged to investors
- Second, backed by MVFT
- Third backed by the full faith and credit pledge of the State
- Lower cost
- Pressure on State's credit rating
  - Potential for raising costs of financing on all of State's borrowing

## Stand-alone Toll Revenue Bonds

- Only payable from toll revenues
  - Contractually pledged to investors
- Supported by credible revenue forecasts
  - Investment-grade T&R study
- Supported by commitments to set tolls to maintain:
  - Coverage (net revenues / debt service)
  - Reserve accounts (debt service, O&M, R&R)
- Higher cost
- Requires amending bond authorization legislation